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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,681	02/28/2002	Michael Schmidt	MERCK-2383	2526

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EXAMINER

VOLLANO, JEAN F

ART UNIT	PAPER NUMBER
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1621

DATE MAILED: 12/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/084,681	<b>Applicant(s)</b> SCHMIDT ET AL.	
	<b>Examiner</b> Jean F. Vollano	<b>Art Unit</b> 1621	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-16 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____.  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: _____.                                   |

### DETAILED ACTION

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers (Germany 10109756.5) have been placed of record in the file. Claims 1-16 are pending.

#### *Claim Rejections - 35 USC § 112*

Claims 9 and 11-16 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: The claim is preparing a specific fluoro-alpha omega bis[(fluoroalkyl) fluorophosphorano]alkane

compound of formula (I). However it is unclear how one can make that from any bis(alkylphosphino) alkane by electrolysis without using a compound of formula (II). For example bis (dodecaphosphino) dodecaoctane is a bis alkylphosphino alkane. However hydrolysis in HF would not, in itself, give the claimed product of claim 1. Therefore there are essential elements or steps missing from the claim language which would demonstrate the process being claimed in the instant invention. This can be overcome by placing the structures (II) or (III) in place of the bis alkylphosphino alkane.

Claims 1-8 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-8 have an odd number of parentheses in the formula name and as such it is unclear exactly what structure the claim is claiming. Applicant should show support for any changes.

Claim 12 recites the limitation of “an excess pressure of from 0 to 3 bar above atmospheric pressure”. It is unclear what is the excess pressure made by adding 0 bar to atmospheric pressure ?. Does the claim mean wherein the electrolysis is carried out between atmospheric pressure and up to 3 bar above? If it does not then what does the limitation mean ?

Claims 1 and 9 are objected to because they use a capital “Y” to denote what the y is in the formula. However in the formula (I) a small y is used. Please be consistent and make the capital Y a small case y to be consistent within the claims.

### *Specification*

2. The specification and abstract are both objected to for containing confusing subject matter. There are word structures both in the specification and the abstract that have an odd number of parentheses which causes confusion in the structures. Applicant should show support for any changes.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Chem abs 720 (CA:133:4720).

Chem abs 720 discloses a compound of formula I wherein  $y$  is 2 and  $n$  is 1 and  $m$  is 0 and  $x$  is 2 or a compound wherein wherein  $y$  is 2 and  $n$  is 2 and  $m$  is 0 and  $x$  is 5.

When Chem abs 720 discloses that  $R_1$  and  $R_2$  are fluorine then the claims are fully anticipated.

5. Claim 10 is free of prior art and objected to as being dependent on a rejected claim but would be allowable if rewritten in independent form including all limitation of the base claim 9. The examiner will withhold comment on claims 9 and 11-16 until the 112 problem concerning omission of essential elements and/or steps is addressed.

The prior art ( CA:90:38988 , CA:95:25216, CA:133:4720, CA:109:231158) teach compounds similar or the same as the instant invention and methods of making the compounds.

CA:90:38988 teaches tetrafluoromethylenebis phosphorane which contains all the requirements except that  $Y$  is 4 and that is not included in the structure being claimed, CA:95:25216 teaches 1,2 ethanediylbis tetrafluorophosphorane which meets the structure of formula I except that  $Y$  is again 4.

CA:133:4720 teaches a compound of formula (I). However the compound is not prepared by electrolysis.

CA:109:231158 teaches a compound similar to formula I except that the phosphorus has all fluorines and no hydrocarbons for the terminal groups. Also the compounds are not prepared by electrolysis.

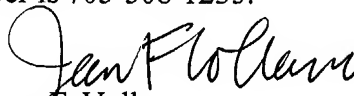
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CA:83:58939 teaches a compound similar to formula I except the terminal groups must be fluorinated to some extent and the terminal groups in Chem abs 939 have unsubstituted alkanes as terminal groups.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean F. Vollano whose telephone number is 703-305-4483. The examiner can normally be reached on Monday-Thursday 6:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 703-308-4532. The fax phone number for the organization where this application or proceeding is assigned is 703-308-4556.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.

  
Jean F. Vollano  
Primary Examiner  
Art Unit 1621

December 15, 2003